National Institute of Environmental Health Sciences

The occurrence of melioidosis is related to different climatic conditions in distinct topographical areas of Taiwan

Author(s): Mu JJ, Cheng PY, Chen YS, Chen PS, Chen YL
Year: 2014
Journal: Epidemiology and Infection. 142 (2): 415-423

Abstract:

This study assessed the correlations between the incidence of melioidosis and rainfall, wind strength and wind direction in both the flat and hilly regions of Taiwan. Data from the melioidosis and climate databases from 2005 to 2011 were combined and analysed. With the inclusion of a lag time accounting for a possible incubation period for melioidosis, the daily rainfall and wind-speed data were correlated with the number of confirmed melioidosis cases. The incidence of melioidosis in the flat region was related to the wind speed (>19 m/s) and the specific angle (150°, 220°, 280°) of the wind direction. Rainfall is a common environmental factor that contributes to an increase in the incidence of melioidosis in both areas; however, the contribution of wind strength or wind direction to the spread of melioidosis was restricted to areas with specific topographical characteristics, such as hills.

Source: http://dx.doi.org/10.1017/s0950268813001271

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Meteorological Factors, Precipitation

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Country

Other Asian Country: Taiwan

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: Meliodidosis

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified